

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/743,280A  
Source: JFWO  
Date Processed by STIC: 1/4/05

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 01/04/2005

PATENT APPLICATION: US/10/743,280A

TIME: 12:32:50

Input Set : A:\2488-1-008 Sequence listing US twice revised.txt

Output Set: N:\CRF4\01042005\J743280A.raw

```

3 <110> APPLICANT: Evolutec Limited
5 <120> TITLE OF INVENTION: Ion Channel Modulators
8 <130> FILE REFERENCE: 2488-1-008
11 <140> CURRENT APPLICATION NUMBER: 10/743,280A
12 <141> CURRENT FILING DATE: 2003-12-22
14 <150> PRIOR APPLICATION NUMBER: PCT/GB02/002919
15 <151> PRIOR FILING DATE: 2002-06-21
17 <150> PRIOR APPLICATION NUMBER: GB0115363.4
18 <151> PRIOR FILING DATE: 2001-06-22
20 <160> NUMBER OF SEQ ID NOS: 69
22 <170> SOFTWARE: SeqWin99
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 18
26 <212> TYPE: DNA
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: PCR primer - T7
32 <400> SEQUENCE: 1
33 taatacgact cactatag 18
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 18
38 <212> TYPE: DNA
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: PCR primer - T3
44 <400> SEQUENCE: 2
45 aattaaccct cactaaag 18
48 <210> SEQ ID NO: 3
49 <211> LENGTH: 20
50 <212> TYPE: DNA
51 <213> ORGANISM: Artificial Sequence
53 <220> FEATURE:
54 <223> OTHER INFORMATION: PCR primer - HF1
56 <220> FEATURE:
57 <221> NAME/KEY: misc_feature
58 <222> LOCATION: 12, 15, 18
59 <223> OTHER INFORMATION: n = a, c, g, or t
61 <400> SEQUENCE: 3
W--> 62 gaygartgyc cnmgnatntg 20
65 <210> SEQ ID NO: 4
66 <211> LENGTH: 18
67 <212> TYPE: DNA
68 <213> ORGANISM: Artificial Sequence

```

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```

70 <220> FEATURE:
71 <223> OTHER INFORMATION: PCR primer - HF2
73 <220> FEATURE:
74 <221> NAME/KEY: misc_feature
75 <222> LOCATION: 9, 12, 15
76 <223> OTHER INFORMATION: n = a, c, g, or t
78 <400> SEQUENCE: 4
W--> 79 gartgyccnm gnatntgy 18
82 <210> SEQ ID NO: 5
83 <211> LENGTH: 17
84 <212> TYPE: DNA
85 <213> ORGANISM: Artificial Sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: PCR primer - HF3
90 <220> FEATURE:
91 <221> NAME/KEY: misc_feature
92 <222> LOCATION: 3, 9
93 <223> OTHER INFORMATION: n = a, c, g, or t
95 <400> SEQUENCE: 5
W--> 96 acnttyggna aycartg 17
99 <210> SEQ ID NO: 6
100 <211> LENGTH: 20
101 <212> TYPE: DNA
102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
105 <223> OTHER INFORMATION: PCR primer - HR1
107 <400> SEQUENCE: 6
108 aatacaacat attcaagtgg 20
111 <210> SEQ ID NO: 7
112 <211> LENGTH: 31
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: PCR primer - HF6
119 <400> SEQUENCE: 7
120 gtacggatcc atgaaatttg ccttggttcag t 31
123 <210> SEQ ID NO: 8
124 <211> LENGTH: 52
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial Sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: PCR primer - HR3
131 <400> SEQUENCE: 8
132 catgctgcag ttagtgatgg tgatggtgat gacccttgca ctgcctatca tg 52
135 <210> SEQ ID NO: 9
136 <211> LENGTH: 19
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial Sequence
140 <220> FEATURE:

```

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```

141 <223> OTHER INFORMATION: Primer - PFBR
143 <400> SEQUENCE: 9
144 gattatgata ctctagtag 19
147 <210> SEQ ID NO: 10
148 <211> LENGTH: 20
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Primer - PFBR
155 <400> SEQUENCE: 10
156 tattccggat tattcatacc 20
159 <210> SEQ ID NO: 11
160 <211> LENGTH: 76
161 <212> TYPE: PRT
162 <213> ORGANISM: Hybomitra bimaculata
164 <220> FEATURE:
165 <221> NAME/KEY: SIGNAL
166 <222> LOCATION: 1-20
168 <400> SEQUENCE: 11
169 Met Lys Phe Ala Leu Phe Ser Val Leu Val Val Leu Leu Ile Ala Thr
170 1 5 10 15
172 Phe Val Ala Ala Asp Glu Cys Pro Arg Ile Cys Thr Ala Asp Tyr Arg
173 20 25 30
175 Pro Val Cys Gly Thr Pro Ser Gly Gly Arg Arg Ser Ala Asn Arg Thr
176 35 40 45
178 Phe Gly Asn Gln Cys Ser Leu Asn Ala His Asn Cys Leu Asn Lys Gly
179 50 55 60
181 Asp Thr Tyr Asp Lys Leu His Asp Gly Glu Cys Lys
182 65 70 75
185 <210> SEQ ID NO: 12
186 <211> LENGTH: 331
187 <212> TYPE: DNA
188 <213> ORGANISM: Hybomitra bimaculata
190 <220> FEATURE:
191 <221> NAME/KEY: CDS
192 <222> LOCATION: 56-285
195 <220> FEATURE:
196 <221> NAME/KEY: misc_feature
197 <222> LOCATION: 48
198 <223> OTHER INFORMATION: n = a, c, g, or t
200 <400> SEQUENCE: 12
W--> 201 gtttagttca gtttttatag taaccagttc taaaagttta ataacatnaa tcaaaatgaa 60
202 atttgcttg ttcagtgttt tagttgttct gctgattgca acatttggtg cggctgatga 120
203 atgcccacgt atttgcacgg ctgactatag accggtatgc ggcactccct ctggtggtcg 180
204 ccgaagtgca aacaggactt ttggaaacca atgtagcctc aacgcccaca actgcttgaa 240
205 caaggagat acttacgaca aactgcatga tggcgagtgc aagtaaaaag gacaagtccc 300
206 aggaatatta ttgactccac ttgaatatgt a 331
209 <210> SEQ ID NO: 13
210 <211> LENGTH: 61

```

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```

211 <212> TYPE: PRT
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Kazal-type inhibitor consensus
217 <400> SEQUENCE: 13
218 Cys Ser Arg Tyr Pro Asn Pro Thr Ser Lys Asp Gly Lys Leu Val Ala
219 1      5      10      15
221 Cys Pro Arg Glu Tyr Asp Pro Val Cys Gly Ser Asp Gly Val Thr Tyr
222      20      25      30
224 Ser Asn Glu Cys Glu Leu Lys Lys Ala Ala Cys Ala Glu Asn Val Glu
225      35      40      45
227 Gln Gly Thr Asn Ile Glu Lys Lys His Asp Gly Pro Cys
228      50      55      60
231 <210> SEQ ID NO: 14
232 <211> LENGTH: 7
233 <212> TYPE: PRT
234 <213> ORGANISM: Hybomitra bimaculata
236 <400> SEQUENCE: 14
237 Pro Ser Gly Gly Arg Arg Ser
238 1      5
240 <210> SEQ ID NO: 15
241 <211> LENGTH: 43
242 <212> TYPE: PRT
243 <213> ORGANISM: Rhodnius prolixus
245 <400> SEQUENCE: 15
246 Cys Ala Cys Pro His Ala Leu His Arg Val Cys Gly Ser Asp Gly Glu
247 1      5      10      15
249 Thr Tyr Ser Asn Pro Cys Thr Leu Asn Val Ala Lys Phe Gly Lys Glu
250      20      25      30
252 Pro Glu Leu Val Lys Val His Asp Gly Pro Cys
253      35      40
255 <210> SEQ ID NO: 16
256 <211> LENGTH: 45
257 <212> TYPE: PRT
258 <213> ORGANISM: Rhodnius prolixus
260 <400> SEQUENCE: 16
261 Cys Gln Glu Cys Asp Gly Asp Glu Tyr Lys Pro Val Cys Gly Ser Asp
262 1      5      10      15
264 Asp Ile Thr Tyr Asp Asn Asn Cys Arg Leu Glu Cys Ala Ser Ile Ser
265      20      25      30
267 Ser Ser Pro Gly Val Glu Leu Lys His Glu Gly Pro Cys
268      35      40      45
270 <210> SEQ ID NO: 17
271 <211> LENGTH: 45
272 <212> TYPE: PRT
273 <213> ORGANISM: Anemonia sulcata
275 <400> SEQUENCE: 17
276 Cys Pro Leu Ile Cys Thr Met Gln Tyr Asp Pro Val Cys Gly Ser Asp
277 1      5      10      15

```

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Input Set : A:\2488-1-008 Sequence listing US twice revised.txt

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```

279 Gly Ile Thr Tyr Gly Asn Ala Cys Met Leu Leu Gly Ala Ser Cys Arg
280           20                25                30
282 Ser Asp Thr Pro Ile Glu Leu Val His Lys Gly Arg Cys
283           35                40                45
285 <210> SEQ ID NO: 18
286 <211> LENGTH: 46
287 <212> TYPE: PRT
288 <213> ORGANISM: Gallus gallus
290 <400> SEQUENCE: 18
291 Cys Lys Lys Thr Ala Cys Pro Val Val Val Ala Pro Val Cys Gly Ser
292 1           5                10                15
294 Asp Tyr Ser Thr Tyr Ser Asn Glu Cys Glu Leu Glu Lys Ala Gln Cys
295           20                25                30
297 Asn Gln Gln Arg Arg Ile Lys Val Ile Ser Lys Gly Pro Cys
298           35                40                45
300 <210> SEQ ID NO: 19
301 <211> LENGTH: 49
302 <212> TYPE: PRT
303 <213> ORGANISM: Homo sapiens
305 <400> SEQUENCE: 19
306 Cys Ser Gln Tyr Arg Leu Pro Gly Cys Pro Arg His Phe Asn Pro Val
307 1           5                10                15
309 Cys Gly Ser Asp Met Ser Thr Tyr Ala Asn Glu Cys Thr Leu Cys Met
310           20                25                30
312 Lys Ile Arg Glu Gly Gly His Asn Ile Lys Ile Ile Arg Asn Gly Pro
313           35                40                45
315 Cys
318 <210> SEQ ID NO: 20
319 <211> LENGTH: 45
320 <212> TYPE: PRT
321 <213> ORGANISM: Gallus gallus
323 <400> SEQUENCE: 20
324 Cys Asp Phe Thr Cys Leu Ala Val Pro Arg Ser Pro Val Cys Gly Ser
325 1           5                10                15
327 Asp Asp Val Thr Tyr Ala Asn Glu Cys Glu Leu Lys Lys Thr Arg Cys
328           20                25                30
330 Glu Lys Arg Gln Asn Leu Val Thr Ser Gln Gly Ala Cys
331           35                40                45
333 <210> SEQ ID NO: 21
334 <211> LENGTH: 46
335 <212> TYPE: PRT
336 <213> ORGANISM: Rattus norvegicus
338 <400> SEQUENCE: 21
339 Cys Asp Phe Ser Cys Gln Ser Val Pro Arg Ser Pro Val Cys Gly Ser
340 1           5                10                15
342 Asp Gly Val Thr Tyr Gly Thr Glu Cys Asp Leu Lys Lys Ala Arg Cys
343           20                25                30
345 Glu Ser Gln Gln Glu Leu Tyr Val Ala Ala Gln Gly Ala Cys
346           35                40                45

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/743,280A

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Input Set : A:\2488-1-008 Sequence listing US twice revised.txt  
Output Set: N:\CRF4\01042005\J743280A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 12,15,18

Seq#:4; N Pos. 9,12,15

Seq#:5; N Pos. 3,9

Seq#:12; N Pos. 48

## VERIFICATION SUMMARY

DATE: 01/04/2005

PATENT APPLICATION: US/10/743,280A

TIME: 12:32:52

Input Set : A:\2488-1-008 Sequence listing US twice revised.txt

Output Set: N:\CRF4\01042005\J743280A.raw

L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0